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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/809,152	03/24/2004	Patrick L. Edson	MWS-104	7394

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EXAMINER
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ALVESTEFFER, STEPHEN D

ART UNIT	PAPER NUMBER
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2173

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/18/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/809,152

Applicant(s)

EDSON ET AL.

Examiner

Stephen Alvesteffer

Art Unit

2173

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 01 February 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-55 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-55 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

The examiner acknowledges the preliminary amendment entered on February 1, 2005, where new claims 44-55 have been added. Claims 1-55 are thus presented for examination. Claims 1, 30, and 44 are independent claims.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

**Claims 15 and 22** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The limitations of "said step of accessing is performed by passing MATLAB commands over said network" (claim 15) and "the code is MATLAB code" (claim 22) are indefinite because the definition of "MATLAB commands" or "MATLAB code" can change when the MATLAB software is updated, thus changing the scope of the limitation.

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 2173

Claims 1-6, 25, 28, 30-33, 36, 44-47, and 50 are rejected under 35 U.S.C. 102(b) as being anticipated by Johnson et al. (hereinafter Johnson), United States Patent Publication number 2003/0001896.

**Regarding claim 1-4**, Johnson teaches a medium holding electronic device executable steps for a method, said method comprising the steps of providing a graphical interface (see Abstract lines 1-3); providing at least one hardware object, representative of a hardware device and depicted in said graphical interface, the hardware object configured to be interactive with said hardware device and enable communication between said graphical interface and said hardware device; and providing at least one of the group of a software object and an analysis object; wherein said software object is representative of a software device, depicted in said graphical interface, and configured to be interactive with said software device and enable communication between said graphical interface and said software device; and wherein said analysis object is adapted to communicate with at least one of said hardware object and said software object for analysis of data from at least one of said hardware object and said software object.

In Johnson, a node (as taught in paragraph [0099]) is typically a graphical icon that represents "underlying program instructions and/or data structures which are executed by a processor (or programmable hardware element)". The node as taught by Johnson is the same as the hardware or software device of the instant application. Furthermore, a node as taught by Johnson (hardware or software device) may invoke an "expert system" component (analysis object) to perform analysis on the

Art Unit: 2173

measurement task specification (see paragraph [0255]). Therefore, the node as taught by Johnson can be a hardware object, a software object (as recited in claim 2 of the instant application), and/or an analysis object (as recited in claim 3 of the instant application). Johnson further teaches the step of receiving program steps for execution by said hardware object (as in claim 4 of the instant application) (see "...underlying program instructions and/or data structures which are executed by a processor (or programmable hardware element..." in Johnson paragraph [0099]).

**Regarding claim 5-6**, Johnson teaches that a plurality of hardware objects are provided for a single hardware device, and a plurality of hardware objects are provided for a plurality of hardware devices. Johnson's invention allows several different types of nodes to be created to accomplish various measurement tasks such as reading and writing to and from a measurement device (see paragraph [0100]).

**Regarding claim 25**, Johnson teaches that said graphical interface is implemented with an extensible API (see Johnson paragraph [0158]).

**Regarding claim 28**, Johnson teaches that said graphical interface is adapted to operate on a plurality of operating systems (see Johnson paragraph [0053]). Although Johnson does not specify exactly which operating systems or exactly how many operating systems his invention supports, it is inherent and well-known in the art that software code is capable of executing on more than one different operating system.

**Claims 30, 31, and 36** recite a method with substantially the same limitations as claims 1-4. Therefore, claims 30, 31, and 36 are rejected under the same rationale.

**Claims 32 and 33** recite a method with substantially the same limitations as claims 5 and 6, respectively. Therefore, claims 32 and 36 are rejected under the same rationale.

**Claims 42 and 43** recite a method with substantially the same limitations as claims 26 and 27, respectively. Therefore claims 42 and 43 are rejected under the same rationale.

**Claims 44, 45, and 50** recite a system with substantially the same limitations as claims 1-4. Therefore, claims 44, 45, and 50 are rejected under the same rationale.

**Claims 46 and 47** recite a system with substantially the same limitations as claims 5 and 6, respectively. Therefore, claims 46 and 47 are rejected under the same rationale.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7-8, 11-15, 34-35, 37-38, 48-49, and 51-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson in view of Fuller, III et al. (hereinafter Fuller), United States Patent Application number 2003/0035008.

**Regarding claim 7**, Johnson teaches all the steps of claim 7 except for the steps of scanning for available hardware; and creating a hardware object for each hardware



Art Unit: 2173

device detected and not already associated with a hardware object. Fuller teaches a method and apparatus for controlling an instrumentation system that automatically scans for available hardware (instruments) and allowing users to select hardware (instruments) from a list of detected hardware (instruments) (see paragraph [0020], first two sentences). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the scanning for available hardware of Fuller with the invention of Johnson in order to allow custom hardware components to be added to the system.

**Regarding claim 8,** Johnson teaches all the steps of claim 8 except that said step of scanning involves the step of receiving user-defined commands to be sent to said hardware device to attempt to identify said hardware device. Fuller teaches allowing the user to initiate a hardware scan. A user-initiated hardware scan is being interpreted with the broadest reasonable interpretation to be the same as sending user-defined command to a hardware device (see paragraph [0020], last two sentences). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the user-initiated hardware scan of Fuller with the invention of Johnson in order to allow custom hardware components to be added to the system on demand.

**Regarding claim 11,** Johnson teaches all the steps of claim 11 except that said graphical interface displays all of said hardware objects and said software objects accessible to said electronic device. Fuller teaches displaying all detected devices that are accessible on the graphical interface (see paragraph [0020], last sentence). It

Art Unit: 2173

would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the displaying all detected devices of Fuller with the invention of Johnson in order to allow users to find and configure custom hardware components on the system.

**Regarding claims 12-14**, Johnson teaches all the steps of claims 12-15 except that at least one of said steps of providing at least one hardware object and providing at least one software object further comprises the step of accessing at least one of a hardware object and a software object located on a web page. It should be noted that if a resource is to be accessible on a web page, it is inherent that it is accessible on a remote electronic device and over a network. Fuller teaches that tasks associated with hardware instruments may be created and made accessible on a web site (see paragraph [0168]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the invention of Fuller with the invention of Johnson in order to allow measurement or testing over a network.

**Regarding claim 15**, the limitation of "accessing is performed by passing MATLAB commands over said network" carries no patentable weight (see 35 USC § 112 rejection above).

**Claims 34 and 35** recite a method with substantially the same limitations as claims 7 and 8, respectively. Therefore, claims 34 and 35 are rejected under the same rationale.



**Claims 37 and 38** recite a method with substantially the same limitations as claims 11 and 12, respectively. Therefore, claims 37 and 38 are rejected under the same rationale.

**Claims 48, 49, 51, and 52** recite a system with substantially the same limitations as claims 7, 8, 11, and 12, respectively. Therefore, the claims are rejected under the same rationale.

**Claims 9-10** are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson in view of Hsiung et al. (hereinafter Hsiung), United States Patent Application number 2003/0083756. Johnson teaches all the elements of claim 9-10 except that said analysis object filters data and plots data. Hsiung teaches a system for monitoring industrial components with an analysis component that performs filtering (see paragraph [0056]) and plotting (see paragraph [0058]) of data. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the filtering and plotting of data of Hsiung with the invention of Johnson for the purpose of providing data analysis functionality.

Claims 16-17, 27, 39-40, 43, and 53-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson in view of Schmit et al. (hereinafter Schmit), United States Patent Application number 2003/0004670.

**Regarding claims 16-17**, Johnson teaches all the limitations of claims 16-17 except the step of modifying at least one of said hardware object and said software

Art Unit: 2173

object wherein the said step of modifying specifies a protocol for use by said hardware object for communication with said hardware device. Schmit teaches a system and method for building a measurement system in which the most efficient protocol to use with each measurement device is determined and applied (see Schmit paragraph [0500]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the hardware protocol selection system of Schmit with the invention of Johnson for the purpose of making the measurement system more efficient.

**Regarding claim 27**, Johnson teaches all the elements of claim 27 except the step of generating an analysis object that can be used in SIMULINK. However, Johnson's invention makes use of the LabVIEW environment for generating analysis objects. (see Johnson paragraph [0101]). Schmit teaches that SIMULINK is similar in function to LabVIEW (see Schmit paragraph [0619]), so it would have been obvious to one of ordinary skill in the art at the time the invention was made to develop the invention of Johnson to be operable with SIMULINK for the purpose of increased interoperability.

**Claims 39 and 40** recite a method with substantially the same limitations as claims 16 and 17. Therefore, claims 39 and 40 are rejected under the same rationale.

**Claim 43** recites a method with substantially the same limitations as claim 27. Therefore, claim 43 is rejected under the same rationale.

**Claims 53 and 54** recite a system with substantially the same limitations as claims 16 and 17. Therefore, claims 53 and 54 are rejected under the same rationale.

Claims 18-24, 26, 41-42, and 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson in view of Hsiung, in further view of Pike et al. (hereinafter Pike), United States Patent Application number 2003/0056018.

**Regarding claims 18-20**, Johnson and Hsiung teach all the limitations of claims 18-20 except that said step of modifying modifies a value stored in an array of an array-based environment; the step of modifying a value stored in an array of an array-based environment, thereby modifying at least one of said hardware object and said software object; and the step of exporting data from said graphical interface to an array-based environment. Pike teaches a system for linking users to control instruments wherein an array-based environment can be used to change the properties of the control instruments (see paragraphs [0010] and [0070]). Pike further teaches that the graphical user interface can be used to export data to an array-based environment such as MATLAB (see paragraph [0040]). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the array-based environment steps of Pike with the measurement systems of Johnson and Hsiung in order to provide array-based control of the measurement devices.

**Regarding claims 21-24**, Johnson and Hsiung teach all the elements of claims 21-24 except the step of converting user actions with the graphical interface into MATLAB code that comprises an analysis routine and steps to create an analysis object, configure the analysis object and write and read data from the analysis object. Pike teaches converting user actions with the graphical interface into interpreted

Art Unit: 2173

programming code capable of performing mathematical computations for modeling, simulation, graphics, or data analysis related to control instruments. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the invention of Pike with the combined inventions of Johnson and Hsiung in order to provide data analysis capabilities.

**Regarding claim 26**, Johnson and Hsiung teach all the limitations of claim 26 except the step of generating an analysis object that can be used in MATLAB. Pike teaches that the user program may be associated with the syntax of any interpreted programming environment, such as MATLAB (see Pike paragraph [0040]). It would have been obvious to one of ordinary skill in the art to combine the invention of Pike with the inventions of Johnson and Hsiung in order to provide support for using the MATLAB environment.

**Claim 41** recites a method having substantially the same limitations as claim 18. Therefore, claim 41 is rejected under the same rationale.

**Claim 42** recites a method having substantially the same limitations as claim 26. Therefore, claim 42 is rejected under the same rationale.

**Claim 55** recites a system having substantially the same limitations as claim 18. Therefore, claim 55 is rejected under the same rationale.

**Claim 29** is rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson in view of Phathayakorn et al. (hereinafter Phathayakorn), United States Patent number 5,986,653. Johnson teaches all the limitations of claim 29 except that said graphical

Art Unit: 2173

interface comprises a tree view, wherein said tree view groups said hardware objects and said software objects by a functionality characteristic. Tree views of hardware and software objects grouped by functionality were a well-known graphical user interface technique at the time the invention was made. Phathayakorn shows selecting a functional group of objects from a tree view graphical representation (see Figures 2A-5B). It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the tree view graphical representation of Phathayakorn to the invention of Johnson in order to provide a representation of the devices on the user interface.

### ***Conclusion***

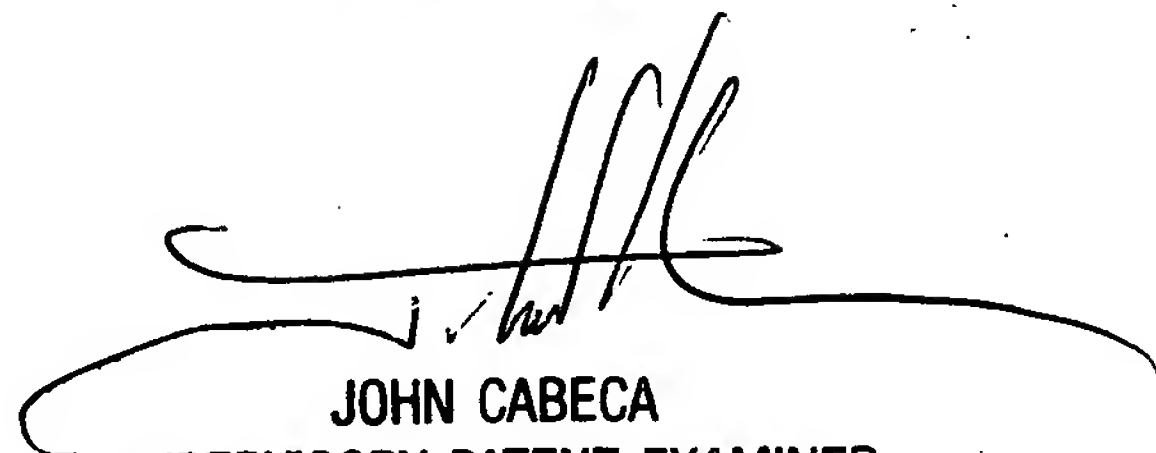
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen Alvesteffer whose telephone number is (571) 270-1295. The examiner can normally be reached on Monday-Friday 10:30AM-7:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cabeca can be reached on (571)272-4048. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2173

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Stephen Alvesteffer  
Examiner  
Art Unit 2173



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SA  
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